

between the **first and second diaphragm openings** in the diaphragm system induces the measurement beam (to be measured). Thus, including the two plates of the Cummins patent in the Schenkl device would not arrive at the exemplary embodiment consistent with the claimed invention.

Thus, to reiterate, independent claim 11, as amended, is not rendered obvious by the Schenkl publication and the Cummins patent for at least the foregoing reason. Independent claims 12 and 13, as amended, are similarly not rendered obvious by the Schenkl publication and the Cummins patent. Since claims 15 and 29 depend from claim 11, since claims 18 and 30 depend from claim 12, and since claims 21, 27, 28 and 31 depend from claim 13, these claims are similarly not rendered obvious by these references.

New Claims

New claim 32 depends from claim 11 and further recites that the first diaphragm opening is arranged closer to the transmitter than to the receiver and the second diaphragm opening is arranged closer to the receiver than to the transmitter. By contrast, both plates in FIG. 5 of the Cummins patent are arranged closer to the light source. Therefore, dependent claim 32 is not rendered obvious by the Schenkl publication and the Cummins patent for at least this additional reason.

New claim 33 depends from claim 11 and further recites that a distance between the first and second diaphragm opening is greater than either (A) a distance

between the first diaphragm opening and the transmitter and (B) a distance between a second diaphragm opening and the receiver. This further distinguishes the claimed invention from the combined sensor illustrated above.

New claim 34 depends from claim 11 and further recites that the diameter of the second diaphragm opening is smaller than the diameter of the first diaphragm opening. Conversely, new claim 35 depends from claim 11 and further recites that the diameter of the second diaphragm opening is larger than the diameter of the first diaphragm opening. These claims further distinguish the claimed invention from the combined sensor.,

New claim 36 depends from claim 11 and further recites a housing configured to accommodate the transmitter, the receiver and the diaphragm system including the first diaphragm opening and the second diaphragm opening. This is illustrated, for example, by Figure 3 of the present application. The Cummins patent and the Schenkl publication do not teach, or make obvious, this feature. Thus, dependent claim 36 is not rendered obvious for at least this additional reason.

New claims 32-36 are supported by FIGS. 1 and 3 and by pages 16 and 20 of the present application. No new matter has been added.